IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

SAMSUNG ELECTRONICS CO., LTD.,)	
SAMSUNG ELECTRONICS AMERICA, INC.,)	
SAMSUNG TELECOMMUNICATIONS)	
AMERICA GENERAL, L.L.C.,)	
SAMSUNG SEMICONDUCTOR, INC., and)	
SAMSUNG AUSTIN SEMICONDUCTOR L.L.C.,)	
Plaintiffs,)	
v.) C.A. No. 06-720 (JJF)	
ON SEMICONDUCTOR CORP. and SEMICONDUCTOR COMPONENTS INDUSTRIES, L.L.C.,)) DEMAND FOR JURY TRIA)	ΑL
Defendants.)	

ON SEMICONDUCTOR'S ANSWER AND COUNTERCLAIMS

Defendants ON Semiconductor Corp. and Semiconductor Components Industries, L.L.C. (collectively, "ON Semiconductor") responds to the numbered paragraphs of the Amended Complaint of Plaintiffs Samsung Electronics Co., Ltd. ("SEC"), Samsung Electronics America, Inc. ("SEA"), Samsung Telecommunications America General, L.L.C. ("STA"), Samsung Semiconductor, Inc. ("SSI"), and Samsung Austin Semiconductor, L.L.C. ("SAS") (collectively "Samsung"), and counterclaims, as follows:

PARTIES

- 1. Admitted, upon information and belief.
- 2. Admitted, upon information and belief, that Plaintiff SEC is in the business of manufacturing and selling a wide range of products, that dynamic random access memories ("DRAMs") are related to this action, and that SEC manufactures and sells DRAMS. Except as expressly admitted, ON Semiconductor denies the averments of Paragraph 2.
 - 3. Admitted, upon information and belief.

- 4. Admitted, upon information and belief.
- 5. Admitted, upon information and belief.
- 6. Admitted, upon information and belief.
- 7. Admitted.
- 8. Admitted.
- 9. Admitted.

NATURE OF ACTION

- 10. Admitted that Samsung purports to seek a declaratory judgment of non-infringement and invalidity pursuant to the Declaratory Judgment Act, 28 U.S.C. §§ 2201, and 2202, and the Patent Laws of the United States, 35 U.S.C. § 100 *et seq.*, but denied that there is any factual or legal basis for such relief. Except as expressly admitted, ON Semiconductor denies the averments of Paragraph 10.
- 11. Admitted that Plaintiff SEC purports to state a cause of action for patent infringement pursuant to the Patent Laws of the United States, 35 U.S.C. § 1 *et seq.*, but denied that there is any factual or legal basis for such relief. Except as expressly admitted, ON Semiconductor denies the averments of Paragraph 11.

JURISDICTION

- 12. Admitted that Samsung purports to base subject matter jurisdiction on the statutes listed in Paragraph 12. Admitted that, pursuant to the Court's April 3, 2008 Order, this Court has held that it has jurisdiction over the subject matter of this action. Except as expressly admitted, ON Semiconductor denies the averments of Paragraph 12.
- 13. The allegations contained in Paragraph 13 of Samsung's Amended Complaint are legal conclusions to which no response is required. To the extent Paragraph 13

contains any allegations, they are denied. ON Semiconductor does not contest venue in this Court for this action.

THE PATENTS

- 14. Admitted that U.S. Patent No. 5,563,594 ("the '594 patent"), entitled "Circuit and Method of Timing Data Transfers," was filed on August 31, 1994, and issued on October 8, 1996, lists David K. Ford and Bernard E. Weir III as the inventors, that Certificates of Correction issued on April 29, 1997, and March 22, 2005, and that a copy of the '594 patent was attached as Exhibit A to the Amended Complaint. Except as expressly admitted, ON Semiconductor denies the averments of Paragraph 14.
- 15. Admitted that U.S. Patent No. 6,362,644 ("the '644 patent"), entitled "Programmable Termination for Integrated Circuits," was filed on August 1, 2000, and issued on March 26, 2002, lists Philip A. Jeffery and Stephen G. Shook as the inventors, and that a copy of the '644 patent was attached as Exhibit B to the Amended Complaint. Except as expressly admitted, ON Semiconductor denies the averments of Paragraph 15.
- 16. Admitted that U.S. Patent No. 5,361,001 ("the '001 patent"), entitled "Circuit and Method of Previewing Analog Trimming," was filed on December 3, 1993, and issued on November 1, 1994, lists David L. Stolfa as the inventor, and that a copy of the '001 patent was attached as Exhibit C to the Amended Complaint. Except as expressly admitted, ON Semiconductor denies the averments of Paragraph 16.
- 17. Admitted that U.S. Patent No. 5,000,827 ("the '827 patent"), entitled "Method and Apparatus for Adjusting Plating Solution Flow Characteristics at Substrate Cathode Periphery to Minimize Edge Effect," was filed on January 2, 1990, and issued on March 19, 1991, lists Virgil E. Schuster, Reginald K. Asher, Sr., and Bhagubhai D. Patel as the inventors,

and that a copy of the '827 patent was attached as Exhibit D to the Amended Complaint. Except as expressly admitted, ON Semiconductor denies the averments of Paragraph 17.

- 18. Admitted.
- 19. Admitted that, on its face, U.S. Patent No. 5,252,177 ("the '177 patent"), entitled "Method for Forming a Multilayer Wiring of a Semiconductor Device," bears a filing date of July 29, 1991, a foreign application priority date of April 15, 1991, and an issue date of October 12, 1993, it lists as the named inventors Jong-Seo Hong, Jin-Hong Kim, and Jung-In Hong, and that a copy of the '177 patent was attached as Exhibit E to the Amended Complaint. Admitted, upon information and belief, that a Certificate of Correction issued on September 19, 1995. Except as expressly admitted, ON Semiconductor denies the averments of Paragraph 19.
- 20. ON Semiconductor is without knowledge or information sufficient to form a belief as to the allegations of Paragraph 20; therefore denied.

COUNT I

- 21. ON Semiconductor repeats and incorporates Paragraphs 1-20 of its Answer as if set forth fully herein.
 - 22. Admitted.
- 23. Admitted that ON Semiconductor asserted that Samsung has infringed and is infringing the '594 patent though its manufacture, use, sale, offer for sale, and/or importation into the United States of product(s) falling within the scope of one more claims of that patent. Except as expressly admitted, ON Semiconductor denies the averments of Paragraph 23.
 - 24. Denied.
- 25. The allegations contained in Paragraph 25 of Samsung's Amended Complaint are legal conclusions to which no response is required. To the extent Paragraph 25 contains any allegations, they are denied.

- 26. Admitted that ON Semiconductor filed a Complaint on December 4, 2006 in the United States District Court for the Eastern District of Texas against Samsung alleging infringement of the '594 patent. Except as expressly admitted, ON Semiconductor denies the averments of Paragraph 26.
- 27. The allegations contained in Paragraph 27 of Samsung's Amended Complaint are legal conclusions to which no response is required. To the extent Paragraph 27 contains any allegations, they are denied.
 - 28. Denied.
 - 29. Denied.
 - 30. Denied.

COUNT II

- 31. ON Semiconductor repeats and incorporates Paragraphs 1-30 of its Answer as if set forth fully herein.
 - 32. Admitted.
- 33. Admitted that ON Semiconductor asserted that Samsung has infringed and is infringing the '644 patent though its manufacture, use, sale, offer for sale, and/or importation into the United States of product(s) falling within the scope of one more claims of that patent. Except as expressly admitted, ON Semiconductor denies the averments of Paragraph 33.
 - 34. Denied.
- 35. The allegations contained in Paragraph 35 of Samsung's Amended Complaint are legal conclusions to which no response is required. To the extent Paragraph 35 contains any allegations, they are denied.
- 36. Admitted that ON Semiconductor filed a Complaint on December 4, 2006 in the United States District Court for the Eastern District of Texas against Samsung alleging

infringement of the '644 patent. Except as expressly admitted, ON Semiconductor denies the averments of Paragraph 36.

- 37. The allegations contained in Paragraph 37 of Samsung's Amended Complaint are legal conclusions to which no response is required. To the extent Paragraph 37 contains any allegations, they are denied.
 - 38. Denied.
 - 39. Denied.
 - 40. Denied.

COUNT III

- 41. ON Semiconductor repeats and incorporates Paragraphs 1-40 of its Answer as if set forth fully herein.
 - 42. Admitted.
- 43. Admitted that ON Semiconductor asserted that Samsung has infringed and is infringing the '001 patent though its manufacture, use, sale, offer for sale, and/or importation into the United States of product(s) falling within the scope of one more claims of that patent. Except as expressly admitted, ON Semiconductor denies the averments of Paragraph 43.
 - 44. Denied.
- 45. The allegations contained in Paragraph 45 of Samsung's Amended Complaint are legal conclusions to which no response is required. To the extent Paragraph 45 contains any allegations, they are denied.
- 46. Admitted that ON Semiconductor filed a Complaint on December 4, 2006 in the United States District Court for the Eastern District of Texas against Samsung alleging infringement of the '001 patent. Except as expressly admitted, ON Semiconductor denies the averments of Paragraph 46.

- 47. The allegations contained in Paragraph 47 of Samsung's Amended Complaint are legal conclusions to which no response is required. To the extent Paragraph 47 contains any allegations, they are denied.
 - 48. Denied.
 - 49. Denied.
 - 50. Denied.

COUNT IV

- 51. ON Semiconductor repeats and incorporates Paragraphs 1-50 of its Answer as if set forth fully herein.
- 52. Admitted that ON Semiconductor filed a Complaint on December 4, 2006 in the United States District Court for the Eastern District of Texas against Samsung alleging infringement of the '827 patent. Except as expressly admitted, ON Semiconductor denies the averments of Paragraph 52.
- 53. The allegations contained in Paragraph 53 of Samsung's Amended Complaint are legal conclusions to which no response is required. To the extent Paragraph 53 contains any allegations, they are denied.
 - 54. Denied.
 - 55. Denied.
 - 56. Denied.

COUNT V

57. ON Semiconductor repeats and incorporates Paragraphs 1-56 of its Answer as if set forth fully herein.

- 58. The allegations contained in Paragraph 58 of Samsung's Amended Complaint are legal conclusions to which no response is required. To the extent Paragraph 58 contains any allegations, they are denied.
 - 59. Denied.
 - 60. Denied.

PRAYER FOR RELIEF

Defendants deny that Samsung is entitled to any relief, either as prayed for in its Amended Complaint or otherwise.

AFFIRMATIVE DEFENSES

61. In addition to the defenses described below, ON Semiconductor expressly reserves the right to allege additional defenses as they become known through the course of discovery.

FIRST AFFIRMATIVE DEFENSE

(Non-Infringement)

62. ON Semiconductor is not infringing and has not infringed, either directly or by inducing or contributing to infringement by others, any valid claim of the '177 patent, either directly or indirectly, or under the doctrine of equivalents.

SECOND AFFIRMATIVE DEFENSE (Invalidity)

63. The claims of the '177 patent are invalid for failure to comply with one or more requirements of the Patent Laws of the United States, including but not limited to, 35 U.S.C. §§ 101, 102, 103, 112, and/or 116.

THIRD AFFIRMATIVE DEFENSE

(Laches or Waiver)

64. The relief sought by Plaintiff SEC is barred in whole or in part by the doctrine of laches, or waiver, or both.

FOURTH AFFIRMATIVE DEFENSE

(Estoppel)

65. On information and belief, Plaintiffs claim for relief is barred, in whole or in part, by the application of the doctrine of equitable estoppel, including, but not limited to, the doctrine of prosecution history estoppel.

FIFTH AFFIRMATIVE DEFENSE

(Notice)

66. To the extent Plaintiff SEC seeks damages for alleged infringement prior to its giving actual or constructive notice of the '177 patent to Defendants, the relief sought by Plaintiff SEC is barred by 35 U.S.C. § 287.

ON SEMICONDUCTOR'S COUNTERCLAIMS

PARTIES

- ON Semiconductor Corp. is a Delaware corporation having its principal place of business at 5005 East McDowell Road, Phoenix, AZ 85008.
- 2. Semiconductor Components Industries, L.L.C. is a Delaware limited liability company having its principal place of business at 5005 East McDowell Road, Phoenix, AZ 85008. Semiconductor Components Industries, L.L.C. is the principal domestic operating subsidiary of ON Semiconductor Corp.
- 3. On information and belief, SEC is a corporation organized and existing under the laws of Republic of Korea having its principal place of business at Samsung Main Building, 205, Taepyong-ro 2-ka, Chung-ku, Seoul 100-743, South Korea. On information and

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belief, SEC manufactures and, in cooperation with its subsidiaries, sells a variety of semiconductor products throughout the United States, including this judicial district.

- 4. On information and belief, SEA is a New York corporation having its principal place of business at 105 Challenger Road, Ridgefield Park, New Jersey 07660.
- 5. On information and belief, STA is a Delaware limited liability company having its principal place of business at 1301 East Lookout Drive, Richardson, Texas 75082.
- 6. On information and belief, SSI is a California corporation having its principal place of business at 3655 North First Street, San Jose, California 95134.
- 7. On information and belief, SAS is a Delaware limited liability company having its principal place of business at 12100 Samsung Boulevard, Austin, Texas 78754.
- 8. On information and belief, SEA, STA, SSI, and SAS are subsidiaries of SEC that sell and market a variety of semiconductor products throughout the United States, including this judicial district, with the cooperation, participation, and assistance of, and, in part, for the benefit of SEC.

JURISDICTION AND VENUE

- 9. These counterclaims arise under the Patent Laws of the United States, 35 U.S.C. § 1 *et seq*. The Court has jurisdiction over the subject matter of these Counterclaims under 28 U.S.C. §§ 1331, 1338(a), 2201, and 2202.
- 10. Venue is proper by virtue of Samsung having invoked the jurisdiction of this Court by the filing of its Amended Complaint, and pursuant to 28 U.S.C. §§ 1391 and 1400(b).

THE PATENTS

11. United States Patent No. 5,563,594 ("the '594 patent"), entitled "Circuit and Method of Timing Data Transfers," was duly and legally issued by the United States Patent

and Trademark Office on October 8, 1996. ON Semiconductor holds all right and interest in the '594 patent including the right to sue for past, present and future infringement.

- 12. United States Patent No. 6,362,644 ("the '644 patent"), entitled "Programmable Termination for Integrated Circuits," was duly and legally issued by the United States Patent and Trademark Office on March 26, 2002. ON Semiconductor holds all right and interest in the '644 patent, including the right to sue for past, present and future infringement.
- 13. United States Patent No. 5,361,001 ("the '001 patent"), entitled "Circuit and Method of Previewing Analog Trimming," was duly and legally issued by the United States Patent and Trademark Office on November 1, 1994. ON Semiconductor holds all right and interest in the '001 patent, including the right to sue for past, present and future infringement.
- 14. United States Patent No. 5,000,827 ("the '827 patent"), entitled "Method and Apparatus for Adjusting Plating Solution Flow Characteristics at Substrate Cathode Periphery to Minimize Edge Effect," was duly and legally issued by the United States Patent and Trademark Office on March 19, 1991. ON Semiconductor holds all right and interest in the '827 patent, including the right to sue for past, present and future infringement.
- 15. U.S. Patent No. 5,252,177 ("the '177 patent"), entitled "Method for Forming a Multilayer Wiring of a Semiconductor Device," states on its face that it was issued on October 12, 1993. SEC has asserted that it owns the '177 patent.

COUNT I

(Infringement of U.S. Patent No. 5,563,594)

- 16. ON Semiconductor repeats and incorporates Paragraphs 1-14 of these Counterclaims as if set forth fully herein.
- 17. On information and belief, Samsung has infringed and is continuing to infringe the '594 patent in violation of 35 U.S.C. § 271 by making, using, selling, offering for

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sale, and/or importing, and by actively inducing and contributing to others' using, selling, offering to sell, and/or importing of product(s) falling within the scope of one of more claims of the '594 patent.

- 18. ON Semiconductor has been damaged by Samsung's infringement of the '594 patent and is entitled to recover the damages sustained by Samsung as a result of its wrongful acts.
- 19. Samsung's infringement of ON Semiconductor's exclusive rights under the '594 patent will continue to damage ON Semiconductor's business, causing irreparable harm, for which there is no adequate remedy at law, unless Samsung is enjoined by this Court.
- 20. Samsung has had actual knowledge of the '594 patent and its infringement is deliberate and willful, entitling ON Semiconductor to increased damages under 35 U.S.C. § 284 and to attorney fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

COUNT II (Infringement of U.S. Patent No. 6,362,644)

- 21. ON Semiconductor repeats and incorporates Paragraphs 1-14 of these Counterclaims as if set forth fully herein.
- 22. On information and belief, Samsung has infringed and is continuing to infringe the '644 patent in violation of 35 U.S.C. § 271 by making, using, selling, offering for sale, and/or importing, and by actively inducing and contributing to others' using, selling, offering to sell, and/or importing of product(s) falling within the scope of one of more claims of the '644 patent.
- 23. ON Semiconductor has been damaged by Samsung's infringement of the '644 patent and is entitled to recover the damages sustained by Samsung as a result of its wrongful acts.

- 24. Samsung's infringement of ON Semiconductor's exclusive rights under the '644 patent will continue to damage ON Semiconductor's business, causing irreparable harm, for which there is no adequate remedy at law, unless Samsung is enjoined by this Court.
- 25. Samsung has had actual knowledge of the '644 patent and its infringement is deliberate and willful, entitling ON Semiconductor to increased damages under 35 U.S.C. § 284 and to attorney fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

COUNT III

(Infringement of U.S. Patent No. 5,361,001)

- 26. ON Semiconductor repeats and incorporates Paragraphs 1-14 of these Counterclaims as if set forth fully herein.
- 27. On information and belief, Samsung has infringed and is continuing to infringe the '001 patent in violation of 35 U.S.C. § 271 by making, using, selling, offering for sale, and/or importing, and by actively inducing and contributing to others' using, selling, offering to sell, and/or importing of product(s) falling within the scope of one of more claims of the '001 patent.
- 28. ON Semiconductor has been damaged by Samsung's infringement of the '001 patent and is entitled to recover the damages sustained by Samsung as a result of its wrongful acts.
- 29. Samsung's infringement of ON Semiconductor's exclusive rights under the '001 patent will continue to damage ON Semiconductor's business, causing irreparable harm, for which there is no adequate remedy at law, unless Samsung is enjoined by this Court.
- 30. Samsung has had actual knowledge of the '001 patent and its infringement is deliberate and willful, entitling ON Semiconductor to increased damages under 35 U.S.C. § 284 and to attorney fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

COUNT IV

(Infringement of U.S. Patent No. the '827 patent)

- 31. ON Semiconductor repeats and incorporates Paragraphs 1-14 of these Counterclaims as if set forth fully herein.
- 32. On information and belief, Samsung has infringed and is continuing to infringe the '827 patent in violation of 35 U.S.C. § 271 by making, using, selling, offering for sale, and/or importing, and by actively inducing and contributing to others' using, selling, offering to sell, and/or importing of product(s) falling within the scope of one of more claims of the '827 patent.
- 33. ON Semiconductor has been damaged by Samsung's infringement of the '827 patent and is entitled to recover the damages sustained by Samsung as a result of its wrongful acts.
- 34. Samsung's infringement of ON Semiconductor exclusive rights under the '827 patent will continue to damage Samsung's business, causing irreparable harm, for which there is no adequate remedy at law, unless Samsung is enjoined by this Court.
- 35. Samsung has had actual knowledge of the '827 patent and their infringement is deliberate and willful, entitling ON Semiconductor to increased damages under 35 U.S.C. § 284 and to attorney fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

COUNT V

(Declaratory Judgment of Noninfringement of United States Patent No. 5,252,177)

36. ON Semiconductor repeats and incorporates Paragraphs 1-15 of these Counterclaims as if set forth fully herein.

- 37. ON Semiconductor is not infringing, and has not infringed, either directly or indirectly, literally or under the doctrine of equivalents, willfully, or otherwise, any valid and asserted claim of the '177 patent.
- 38. To resolve the legal and factual questions raised by Samsung, and to afford relief from the uncertainty and controversy that Samsung's allegations have precipitated, ON Semiconductor is entitled to a declaratory judgment that it does not infringe any valid and asserted claim of the '177 patent.

COUNT VI

(Declaratory Judgment of Invalidity of United States Patent No. 5,252,177)

- 39. ON Semiconductor repeats and incorporates Paragraphs 1-15 of these Counterclaims as if set forth fully herein.
- 40. The claims of the '177 patent are invalid for failure to comply with one or more requirements of the Patent Laws of the United States, including without limitation, 35 U.S.C. §§ 101, 102, 103, 112, and/or 116.
- 41. To resolve the legal and factual questions raised by Samsung, and to afford relief from the uncertainty and controversy that Samsung's allegations have precipitated, ON Semiconductor is entitled to a declaratory judgment that it does not infringe any valid and asserted claim of the '177 patent.

PRAYER FOR RELIEF

WHEREFORE, ON Semiconductor prays for judgment in its favor against Samsung, and requests the following relief:

A. An adjudication that Samsung has infringed, contributed to the infringement of, and/or induced infringement of the '594, '644, '001, and '827 patents;

- B. An adjudication that the '594, '644, '001, and '827 patents are valid and enforceable;
- C. An accounting of all damages sustained by ON Semiconductor as a result of Samsung's acts of infringement;
- D. An award to ON Semiconductor of actual damages adequate to compensate it for Samsung's acts of direct, contributory, and/or inducement of infringement, together with prejudgment and post-judgment interest and costs;
- E. An award to ON Semiconductor of enhanced damages, up to and including trebling of ON Semiconductor's damages, pursuant to 35 U.S.C. § 284 for Samsung's willful infringement;
- F. A preliminary and permanent injunction order against further infringement of the '594, '644, '001, and '827 patents by Samsung, including SEC, SEA, STA, SSI, and SAS, each their officers, agents, servants, employees, subsidiaries, and those persons acting in concert with it, including related individuals and entities, customers, representatives, manufacturers, OEMs, dealers, and distributors;
- G. A declaration that ON Semiconductor does not infringe any valid and asserted claim of United States Patent No. 5,252,177;
 - H. A declaration that United States Patent No. 5,252,177 is invalid;
 - I. Dismissal of all of Samsung's claims in their entirety with prejudice;
 - J. A declaration that Samsung takes nothing by way of their complaint;
- K. A declaration that this is an exceptional case and an award of reasonable attorney fees incurred in this action as provided by 35 U.S.C. § 285;

L. An award to ON Semiconductor for its costs and expenses in this action;

and

M. Such other relief the Court may deem just and proper.

JURY DEMAND

Pursuant to Federal Rule of Civil Procedure 38(b), ON Semiconductor demands a trial by jury on all issues so triable.

MORRIS, NICHOLS, ARSHT & TUNNELL LLP

/s/ Richard J. Bauer (#4828)

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Dated: April 17, 2008

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CERTIFICATE OF SERVICE

I, the undersigned, hereby certify that on April 17, 2008 I electronically filed the foregoing with the Clerk of the Court using CM/ECF, which will send notification of such filing(s) to the following:

> Josy W. Ingersoll John W. Shaw Andrew A. Lundgren YOUNG CONAWAY STARGATT & TAYLOR

I also certify that copies were caused to be served on April 17, 2008 upon the following in the manner indicated:

BY HAND AND EMAIL

John W. Shaw Andrew A. Lundgren YOUNG CONAWAY STARGATT & TAYLOR The Brandywine Building 1000 West Street, 17th Floor Wilmington, DE 19801

BY EMAIL

John M. Desmarais James E. Marina KIRKLAND & ELLIS 153 East 53rd Street New York, NY 10022

/s/Richard J. Bauer

Richard J. Bauer (#4828)